

## **CAF/21/06 - ARCHERY Project: Ai to Revolutionise the patient Care pathway in Hip and knEe aRthroplastY.**

### ***Taking Aim at delays to arthritis treatment***

The project will determine whether Artificial intelligence (AI) can help General Practitioners' (GPs) decision-making about which patients with arthritis are referred for hip or knee replacement surgery.

More than 1 in 10 people over the age of 45 have arthritis. This can be associated with significant pain and inability to perform normal activities such as walking, getting dressed or going to the shops. Some have described living with the condition as a state "worse than death". Surgery provides an excellent solution but is not a suitable option for all patients.

Currently GPs often have difficulty deciding which patients with arthritis might benefit from an operation. This leads to many referrals for orthopaedic input and prolonged waiting times for surgery.

Planned AI analysis of routinely collected health information about patients with end-stage hip and knee arthritis will allow for development of a tool that helps predict who is likely to undergo surgery.

Use of such a tool will help improve future referral pathways, ensuring those likely to benefit from surgery are seen promptly and efficiently. This should see reduced waiting times that helps those needing surgery to get back on their feet again quickly.